

CLAIMS AMMENDMENTS

Claim 1(Currently amended) What we claim as our invention is:
A continuous flow psychrophilic anaerobic digester, micro-filtration integrated aquaculture waste treatment system comprised of:

- a. An anaerobic digester to capture waste, fitted with augers to mix digested slurry with waste stream.
- b. Valves to control the flow of effluent to allow sludge to settle before effluent is released.
- c. Micro-filter to filter solids and pathogens from effluent.
- d. ~~Aquatic plants for filtering of effluent.~~ Over flow canal for effluent to flow into.

Claim 2(original) A system according to claim 1 where valve for effluent is closed before receiving waste stream.

Claim 3(original) A system according to claim 1 where waste is mixed daily with augers.

Claim 4(original) A system according to claim 1 where waste is allowed to settle at least eight hours before opening valve to allow effluent to flow out.

Claim 5(original) A system that converts existing manure pits, i.e. lagoons into anaerobic digesters by covering the pit with an airtight diaphragm secured to a concrete beam where diaphragm is kept under a negative pressure.

Claim 6(original) A system according to claim 5 that protects against environmental contamination by removing the danger of the diaphragm being lifted by biogases in flood stage.

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Claim 7(original) A system according to claim 5 where concrete beam is plumbed to receive waste, to pump of biogas, to provide for effluent over flow, and to remove finished slurry.

Claim 8(original) A system according to claim 5 where biogas is pumped off into storage and an emergency photovoltaic pump located on vent is used during flood stage.

Claim 9(currently amended) A system for effluent overflow
~~of aquatic plant filtering of effluent~~ the system comprised of:

- a. A canal adjacent to digester
- b. Canal is lined and covered with a greenhouse
- ~~c. An overhead conveyor harvester~~

Claim 10 (original) A system according to claim 9 where canal is lined and covered to prevent ground water contamination.

Claims 11-17(canceled)